



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,348	09/19/2006	Hitomi Teraoka	500.46545X00	9951
20457	7590	04/09/2009	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP			LEE, ANDREW CHUNG CHEUNG	
1300 NORTH SEVENTEENTH STREET				
SUITE 1800			ART UNIT	PAPER NUMBER
ARLINGTON, VA 22209-3873			2419	
			MAIL DATE	DELIVERY MODE
			04/09/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/593,348	TERAOKA ET AL.	
	Examiner	Art Unit	
	Andrew C. Lee	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 28 January 2009.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-22 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/28/2009.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application

6) Other: _____.

DETAILED ACTION

Response to Amendment

1. Claims 6 - 22 are newly added.

Claims 1 – 22 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 6, 7, 8, 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding claims 6 and 9, the newly added claimed subject matter “a receiver unit” was described in the specification at the time the application was initially filed; regarding claims 7 and 8, the newly added claimed subject matters “a transmitter unit”, “a receiver unit” were described in the specification at the time the application was initially filed. The newly added claimed subject matters “a transmitter unit”, “a receiver unit” were not disclosed and described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was initially filed, had possession of the claimed invention. Clarification and correction is required.

claims 18, 19, 20, 21, 10, 22 are rejected under 35 U.S.C. 112, first paragraph, since the claims are dependent upon independent claims 6, 7, 8, 9, respectively.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 5, it is not clear where the preamble starts and ends, and where the main body of claimed subject matters begins and finishes. A transitional phase is missing. Clarification and correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 12, 2, 3, 5, 14, 16, 4, 11, 13, 15, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrol et al. (US 7403498 B2) in view of Solomon et al. (US 20040252717 A1).

Regarding claims 1, 12, Abrol et al. disclose a packet data serving node for connecting a communication terminal device to a public network by using Point to Point Protocol (PPP) (“*packet data serving node (PDSN), and PPP*”; *Fig.4, col. 1, lines 26 –*

40), comprising: Link Control Protocol (LCP) phase processing means (“*A Link Control Protocol (LCP)*”; *Fig.4, col. 1, lines 26 – 40*); Network Control Protocol (NCP) phase processing means (“*A family of Network Control Protocols (NCPs)*”; *Fig.4, col. 1, lines 26 – 40*); decision means for deciding a type of a reception PPP packet (“*LCP Configure-request packet*”; *col. 4, lines 3 – 12, lines 25 – 32*), except a layer 3 protocol type; and control means for making said NCP phase processing means transmit an NCP start request message destined to said communication terminal device, after an LCP phase is completed and said decision means receives an NCP start request message from said communication terminal device (“*Fig. 4, elements 420, 422, 424, 426*”, and “*IPCP Configure-Req*” as an NCP start request message; *Fig. 3, Fig. 4, col. 1, lines 26 – 40, col. 5, lines 24 – 30, lines 56 – 65*).

Abrol et al. do not disclose explicitly a layer 3 protocol type. Solomon et al. in the same field of endeavor teach a layer 3 protocol type (“*protocol type and layer 3*”; *paras. [0045], [0046]*).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Abrol et al. to include the features of < a layer 3 protocol type as taught by Solomon et al. One of ordinary skill in the art would be motivated to do so for providing data communication networks, and specifically to interworking between packet networks and data networks of other kinds (*as suggested by Solomon et al., see para. [0001]*).

Regarding claims 2, 3, 5, 14, 16, Abrol et al. disclose a packet data serving node, and a communication method for connecting a communication terminal device to

a public network by using Point to Point Protocol (PPP) (“*packet data serving node (PDSN), and PPP*”; *Fig. 4, col. 1, lines 26 – 40*), comprising: Link Control Protocol (LCP) phase processing means (“*A Link Control Protocol (LCP)*”; *Fig. 4, col. 1, lines 26 – 40*); a plurality of Network Control Protocol (NCP) phase processing means (“*A family of Network Control Protocols (NCPs)*”; *Fig. 4, col. 1, lines 26 – 40*); decision means for deciding a type of a reception PPP packet (“*LCP Configure-request packet*”; *col. 4, lines 3 – 12, lines 25 – 32*), except a layer 3 protocol type; and control means for selecting one of said NCP phase processing means corresponding to a layer 3 protocol used by said communication terminal device and making said selected NCP phase processing means transmit an NCP start request message destined to said communication terminal device, after an LCP phase is completed and said decision means receives an NCP start request message from said communication terminal device (“*Fig. 4, elements 420, 422, 424, 426*”, and “*IPCP Configure-Req*” as an NCP start request message; *Fig. 3, Fig. 4, col. 1, lines 26 – 40, col. 5, lines 24 – 30, lines 56 – 65*; “*element 225 network layer protocols*” as layer 3 protocol; *Fig. 2, col. 3, lines 65 – 67, col. 4, lines 1 – 2*).

Abrol et al. do not disclose explicitly a layer 3 protocol type. Solomon et al. in the same field of endeavor teach a layer 3 protocol type (“*protocol type and layer 3*”; paras. [0045], [0046]).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Abrol et al. to include the features of < a layer 3 protocol type as taught by Solomon et al. One of ordinary skill in the art would be motivated to do so for providing data communication networks, and specifically to

interworking between packet networks and data networks of other kinds (as suggested by Solomon et al., see para. [0001]).

Regarding claim 4, Abrol et al. discloses a packet data serving node for connecting a communication terminal device to a public network by using Point to Point Protocol (PPP) (“*packet data serving node (PDSN), and PPP*”; *Fig.4, col. 1, lines 26 – 40*), comprising: Link Control Protocol (LCP) phase processing means (“*A Link Control Protocol (LCP)*”; *Fig.4, col. 1, lines 26 – 40*); *Network Control Protocol (NCP) phase processing means* (“*A family of Network Control Protocols (NCPs)*”; *Fig.4, col. 1, lines 26 – 40*); decision means for deciding a type of a reception PPP packet (“*LCP Configure-request packet*”; *col. 4, lines 3 – 12, lines 25 – 32*), except a layer 3 protocol type; statistics processing means for statistically processing a type of a layer 3 protocol under PPP (*Fig. 2, col. 3, lines 47 – 57, lines 65 – 67, col. 4, lines 1 – 2*); and control means for selecting said NCP phase processing means using a layer 3 protocol designated by said statistics processing means, and after an LCP phase is completed, making said NCP phase processing means transmit an NCP start request message destined to said communication terminal device (“*Fig. 4, elements 420, 422, 424, 426*”, and “*IPCP Configure-Req*” as an NCP start request message; *Fig. 3, Fig. 4, col. 1, lines 26 – 40, col. 5, lines 24 – 30, lines 56 – 65*; “*element 225 network layer protocols*” as layer 3 protocol; *Fig. 2, col. 3, lines 65 – 67, col. 4, lines 1 – 2*).

Abrol et al. do not disclose explicitly a layer 3 protocol type. Solomon et al. in the same field of endeavor teach a layer 3 protocol type (“*protocol type and layer 3*”; paras. [0045], [0046]).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Abrol et al. to include the features of < a layer 3 protocol type as taught by Solomon et al. One of ordinary skill in the art would be motivated to do so for providing data communication networks, and specifically to interworking between packet networks and data networks of other kinds (as suggested by Solomon et al., see para. [0001]).

Regarding claims 11, 13, 15, 17, Abrol et al. disclose the packet data serving node claimed wherein said reception PPP packet is from said communication terminal device (*Fig. 1A, Fig. 2 TE2 (102), col. 3, lines 39 – 48*).

6. Claims 6, 7, 8, 9, 18, 19, 20, 21, 10, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrol et al. (US 20080151784 A1) in view of Solomon et al. (US 20040252717 A1).

Regarding claim 6, Abrol et al. disclose a communication connection apparatus for connecting a communication terminal to a public network by using Point to Point Protocol (PPP) via a provider network (*Fig. 1, Fig. 2, paras. [0012], [0016]*), comprising: a receiver unit which receives a Network Control Protocol (NCP) start request packet from the communication terminal after completing a Link Control Protocol (LCP) process and an authentication process (“*IPCP C-REQ*”, “*TE*”, “*MT*”, “*Channel Host Authentication Protocol (CHAP)*”, *LCP C-Req(CHAP)*”; *Fig. 4, paras. [0033] – [0038]*); and a control unit which decides a NCP layer in a field of the NCP start request packet received by the receiver unit, and which transmits a NCP start request packet of the

decided protocol type to the communication terminal (“*PDSNA*”; *Fig. 4, Fig. 5, paras. [0033] – [0038], [0040]-[0041]*), except layer 3 protocol type of a received packet based on layer 3 protocol type identification information.

Abrol et al. do not disclose explicitly a layer 3 protocol type of a received packet based on layer 3 protocol type identification information. Solomon et al. in the same field of endeavor teach a layer 3 protocol type of a received packet based on layer 3 protocol type identification information (“*protocol type and layer 3*”; *paras. [0045], [0046]*).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Abrol et al. to include the features of a layer 3 protocol type of a received packet based on layer 3 protocol type identification information as taught by Solomon et al. One of ordinary skill in the art would be motivated to do so for providing data communication networks, and specifically to interworking between packet networks and data networks of other kinds (*as suggested by Solomon et al., see para. [0001]*).

Regarding claim 7, Abrol et al. disclose a communication connection apparatus for connecting a communication terminal to a public network by using Point to Point Protocol (PPP) via a provider network (*Fig. 1, Fig. 2, paras. [0012], [0016]*), comprising: a transmitter unit which transmits a plurality of Network Control Protocol (NCP) start request packets corresponding to a plurality of protocols respectively to the communication terminal after completing a Link Control Protocol (LCP) process and an authentication process (“TE”; *Fig. 4, paras. [0033] – [0038]*); a receiver unit which receives a NCP start request packet corresponding to one of the plurality of protocols

from the communication terminal (“*IPCP C-REQ*”, “*TE*”, “*MT*”, “*Channel Host Authentication Protocol (CHAP)*”, *LCP C-Req(CHAP)*”; *Fig. 4, paras. [0033] – [0038]*); and a control unit which controls to decide a protocol type used by a source communication terminal of the received NCP start request packet based on information in the NCP start request packet received by the receiver unit, and which transmits a connection permission packet of the decided protocol type to the source communication terminal (“*PDSNA*”; *Fig. 4, Fig. 5, paras. [0033] – [0038], [0040]-[0041]*).

Regarding claims 8, 19, Abrol et al. disclose a communication connection apparatus for connecting a communication terminal to a public network by using Point to Point Protocol (PPP) via a provider network (*Fig. 1, Fig. 2, paras. [0012], [0016]*), comprising: a transmitter unit which transmits a Network Control Protocol (NCP) start request packet of a type used by the communication terminal to the communication terminal after completing a Link Control Protocol (LCP) process and an authentication process (“*TE*”; *Fig. 4, paras. [0033] – [0038]*, except a layer 3 protocol type); a receiver unit which receives a NCP start request packet of the protocol from the communication terminal (“*IPCP C-REQ*”, “*TE*”, “*MT*”, “*Channel Host Authentication Protocol (CHAP)*”, *LCP C-Req(CHAP)*”; *Fig. 4, paras. [0033] – [0038]*); and a control unit which controls to transmit a connection permission packet of the protocol to a source communication terminal of the NCP start request packet (“*PDSNA*”; *Fig. 4, Fig. 5, paras. [0033] – [0038], [0040]-[0041]*).

Solomon et al. in the same field of endeavor teach a layer 3 protocol type (“*protocol type and layer 3*”; *paras. [0045], [0046]*).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Abrol et al. to include the features of a layer 3 protocol type as taught by Solomon et al. One of ordinary skill in the art would be motivated to do so for providing data communication networks, and specifically to interworking between packet networks and data networks of other kinds (*as suggested by Solomon et al., see para. [0001]*).

Regarding claim 9, Abrol et al. (US 20080151784 A1) disclose a communication terminal connected to a public network via a provider network and a communication connection apparatus by using Point to Point Protocol (PPP) (*Fig. 1, Fig. 2, paras. [0012], [0016]*),, comprising:

a receiver unit which receives a Network Control Protocol (NCP) start request packet from the communication connection apparatus after completing a Link Control Protocol (LCP) process and an authentication process (“*IPCP C-REQ*”, “*TE*”, “*MT*”, “*Channel Host Authentication Protocol (CHAP)*”, *LCP C-Req(CHAP)*”; *Fig. 4, paras. [0033] – [0038]*); a control unit which controls to decide a layer 3 protocol type of the received packet based on layer 3 protocol type identification information in a field in the NCP start request packet received by the receiver unit, and which transmits a NCP start request packet of the decided protocol type to the communication connection apparatus when the decided protocol type coincides with a protocol used by the communication terminal (“*PDSNA*”; *Fig. 4, Fig. 5, paras. [0033] – [0038], [0040]-[0041]*), except layer 3

protocol type of a received packet based on layer 3 protocol type identification information.

Abrol et al. do not disclose explicitly a layer 3 protocol type of a received packet based on layer 3 protocol type identification information. Solomon et al. in the same field of endeavor teach a layer 3 protocol type of a received packet based on layer 3 protocol type identification information (“*protocol type and layer 3*”; paras. [0045], [0046]).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Abrol et al. to include the features of a layer 3 protocol type of a received packet based on layer 3 protocol type identification information as taught by Solomon et al. One of ordinary skill in the art would be motivated to do so for providing data communication networks, and specifically to interworking between packet networks and data networks of other kinds (as suggested by Solomon et al., see para. [0001]).

Regarding claim 10, Abrol et al. (US 20080151784 A1) disclose a communication terminal claimed wherein the control unit discards the Network Control Protocol (NCP) start request packet received by the receiver unit, except when the protocol type decided based on layer 3 protocol type identification information in the field in the NCP start request packet received by the receiver unit does not coincide with a protocol used by the communication terminal.

Abrol et al. do not disclose explicitly when the protocol type decided based on layer 3 protocol type identification information in the field in the NCP start request

packet received by the receiver unit does not coincide with a protocol used by the communication terminal.

Solomon et al. in the same field of endeavor teach when the protocol type decided based on layer 3 protocol type identification information in the field in the NCP start request packet received by the receiver unit does not coincide with a protocol used by the communication terminal (*para. [0055]*).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Abrol et al. to include the features of when the protocol type decided based on layer 3 protocol type identification information in the field in the NCP start request packet received by the receiver unit does not coincide with a protocol used by the communication terminal as taught by Solomon et al. One of ordinary skill in the art would be motivated to do so for providing data communication networks, and specifically to interworking between packet networks and data networks of other kinds (as suggested by Solomon et al., see *para. [0001]*).

Regarding claim 18, Abrol et al. disclose the communication connection apparatus claimed wherein said received packet is from said communication terminal (*Fig. 1A, Fig. 2, TE, para. [0025]-[0026]*).

Regarding claims 20, 21, 22, Abrol et al. disclose the communication connection apparatus, the communication terminal claimed wherein the transmitted said connection permission packet has a protocol type corresponding to the protocol type of the received NCP start request packet (“configure-ack”; *col. 4, lines 3—6, lines 10 – 12*).

Response to Arguments

7. Applicant's arguments filed on 01/28/2009 with respect to claims 1 – 22 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claims 1 – 5, applicant argues that applicant respectfully submits the following. However, such rejections have been rendered obsolete by the present clarifying amendments to Applicant's claims, and accordingly, traversal arguments are not appropriate at this time. However, Applicant respectfully submits the following to preclude renewal of any such rejections against Applicant's clarified claims. Applicant then argues to conclude, it is respectfully submitted that Applicant's present invention is different from Abrol in having "decision means" and in an assumption, control target, and scheme of the time-saving. Examiner respectfully disagrees.

Since claims have been modified and new claims and new issues have been added and hence change the scope of the claims, the combined system of a new found reference Abrol et al. (US 20080151784 A1) and Solomon et al. discloses the limitations for newly added claims. See applicant's Fig. 6 and Fig. 4 of newly found cited reference Abrol et al. (US 20080151784 A1), Both figures indicate LCP phase, then authentication and NCP phase (IPCPs) to establish the communication path. See Abrol et al. (US 20080151784 A1) para. [0009], [0036] – [0038].

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Kitada et al. (US 20030037163 A1).

- b) Bhatia et al. (6052803).
- c) Dunk (US 20040264465 A1).
- d) Simonnet et al. (US 20040081201 A1).
- e) Sasaki et al. (US 7260107 B1).

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571)272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Lee/
Examiner, Art Unit 2419
<4/02/2009::3Qy09>

/Ronald Abelson/
Primary Examiner, Art Unit 2419